

Abstract

The present invention relates to low molecular weight chitosan oligosaccharides and its preparation method. Chitosan oligosaccharides were obtained under microwave irradiation assisted the electrolyte. The method of preparing chitosan oligosaccharides was described as follows: acid solvent containing electrolyte was added to chitosan. The reaction was performed at 480~800 W for 3~12 min. After irradiation ceased, the reaction liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 1~10 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.